





# WRITTEN OPINION

International Application No.  
PCT/US03/20107

## V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. STATEMENT

Novelty (N)	Claims <u>8-12, 22-26</u>	YES
	Claims <u>1-7, 13-21, 27-31</u>	NO
Inventive Step (IS)	Claims <u>NONE</u>	YES
	Claims <u>1-31</u>	NO
Industrial Applicability (IA)	Claims <u>1-31</u>	YES
	Claims <u>NONE</u>	NO

### 2. CITATIONS AND EXPLANATIONS

Claims 1-7, 13-21, 27 and 29-31 lack novelty under PCT Article 33(2) as being anticipated by US 5,700,107 A (NEWTON). NEWTON teaches a process for soil remediation comprising adding an acid and a complexing agent that includes a chelating agent, a salt of iron, and a persulfate such as one of the sodium salts of persulfate to remove pesticides and other contaminants at a temperature of at least 35°C and with a di- or tri-valent catalytically active metal oxide (abstract, sol. 1, lines 52-67, col. 2, lines 24-49, col. 4, lines 1-16, col. 5, lines 41-50, col. 7, lines 8-10).

Claims 1-3, 16, 17 and 27-30 lack novelty under PCT Article 33(2) as being anticipated by US 5,741,427 A (WATTS et al). WATTS et al teach a method for the remediation of soil or groundwater comprising adding an acid-stabilized peroxide and a Fe(II) EDTA chelate or Fe(III) salt catalyst to remove pesticides and other contaminants (see abstract, col. 3, line 30-46 to col. , line 51, claims 1, 3).

Claims 8-12 and 22-26 lack an inventive step under PCT Article 33(3) as being obvious over NEWTON. NEWTON discloses all of the limitations of the claims except that the peroxygen compound is a combination of di- and monopersulfate, and that sodium carbonate or bicarbonate is added in a preferred amount as a pH modifier. It is submitted that one having ordinary skill in the art would know to use any available combination of persulfates that are known in the art to be capable of oxidizing contaminants in soil based on the teaching of persulfates of sodium in the patent, and to use any well known agent for pH adjustment at preferred levels that will achieve a desired level of decontamination based on the nature of the contaminants, process conditions, and cost and availability of the agents.

Claims 1-31 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

----- NEW CITATIONS -----

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**Supplemental Box**  
(To be used when the space in any of the preceding boxes is not sufficient)

**TIME LIMIT:**

The time limit set for response to a Written Opinion may not be extended. 37 CFR 1.484(d). Any response received after the expiration of the time limit set in the Written Opinion will not be considered in preparing the International Preliminary Examination Report.